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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/408,045	09/29/1999	PAUL TUBEL	WEAT/0003	3520

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EXAMINER

WONG, ALBERT KANG

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 06/10/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/408,045

Applicant(s)

TUBEL ET AL.

Examiner

Albert K Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34, 42-59 and 61-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-34 and 71-73 is/are allowed.
- 6) ☒ Claim(s) 42-59 and 61-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. This Office action is in response to the amendment filed March 3, 2004. Claims 1-34, 42-59 and 61-73 are pending. Claims 1, 13, 20, 23, 24, and 32 have been amended as requested. The specification has been amended.

Prior rejections withdrawn

2. The prior rejection of claims 1-34 and 71-73 have been withdrawn in view of the amendment and remarks.

Prior rejections maintained

3. The prior rejection of claims 43-59 and 61-70 have been maintained and repeated below.

4. Claims 57-59, and 61-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tubel '165 and Salvo '205.

Regarding claim 22, Tubel does not teach a remote controller comprising a computer with internet access. Salvo teach in figure 1 and col. 4, lines 50-62 a monitor and control system for a plurality of wells with a remote controller with internet access. Since access is from a single user site to a plurality of well monitors, communication is via a server (item 55 or 20). One of ordinary skill in the art would be familiar with various remote monitor/control system pertaining to wells. It would have been obvious to use a computer with internet access so that the user can access the system from virtually any location via the communication link as taught by Salvo.

Regarding claim 23, both Tubel teaches the use of satellites as a communication channel to link platforms which contain servers with the remote controller.

Regarding claims 33 and 34, these limitations have been addressed in claims 22 and 23.

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Regarding claim 57, Tubel '165 teaches a tool body, sensor, controller and data acquisition system. Tubel teaches a server in communication with the controller and data acquisition system where the server is in communication with a remote controller in a remote location. Tubel does not teach the remote controller communicating through the server via the internet. First, Salvo teaches the use of a remote controller communicating with a server via the internet. The motivation for combining this teaching with Tubel have been addressed above.

Regarding claim 58, the communication device is merely the cable linking the server with the controller.

Regarding claim 59, Tubel shows the use of a satellite system for communication between the well and a remote control location.

Regarding claims 61-64, these limitations have been addressed in prior claims.

Regarding claim 65, the surface control and data acquisition system, sensors, downhole devices, and remote controller has been discussed above and taught by Tubel. See claim 24. Tubel does not teach the remote controller controlling the downhole devices by sending commands via the internet to the server. As discussed above, Salvo teaches this function with the motivation for combining such a feature with a well monitoring and control system.

Regarding claim 66, the claimed communication device is the communication link shown in Figure 1 of Salvo.

Regarding claim 67, Salvo teaches the various communication links in col. 4, lines 50-60.

Regarding claim 68, it would have been obvious to one of ordinary skill in the art that the satellite may be placed anywhere in the communications channel. Satellites provides the advantage of inexpensive communication over vast distances.

Regarding claims 69 and 70, these limitations have been addressed above.

5. Claims 42-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tubel '165 and Rinaldi and further in view of Salvo.

Regarding claim 42, Tubel discloses the transmission of data collected by sensor modules to a control system which evaluates the data and optimizes the parameters. Tubel also discloses the transmission of signals to a remote controller. Tubel does not explicitly teach the use of optimization software. Rinaldi teaches such a program for production wells. Since they are in the same field of endeavor, it would have been obvious to combine the references to gain the advantages taught in each. Tubel also does not disclose a computer with internet access. Salvo teaches the use of the Internet to access data from a plurality of wells. As stated above the access is through a server. Further, it would have been obvious to access the system via a computer through the internet because the user can access the system from virtually any location.

Regarding claim 43, the use of memory to store data is conventional and inherent in the system of Tubel. Processed data must be stored at some point.

Regarding claim 44, as recited above, the monitoring of equipment to anticipate problems would have been obvious.

Regarding claim 45, see Figure 1 of Tubel.

Regarding claim 46, the system of Tubel allows the surface unit to modify the operation downhole. It would have been obvious that the command may be sent from a variety of locations since the system stores the measured data in a network. Remote control provides the obvious advantage of being able to locate workers offsite.

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Regarding claim 47, it would have been obvious that data is accessible at any point in the network of Tubel.

Regarding claims 48 and 49, Tubel teaches these features.

Regarding claim 50, the satellite interlinks the wells to a central control in Tubel and thus the command may be sent from any location.

Regarding claim 51, the use of digital or analog communications is inherent.

Regarding claim 52, see Tubel.

Regarding claim 53 and 54, Rinaldi teaches the control of chemicals and the injection of steam to optimize production.

Regarding claim 55-56, Tubel teaches the advantage of monitoring water and formation influx.

New rejections

6. NONE.

Response to Remarks

Applicant argues that the combination of Tubel with Salvo is improper because they are in different fields. The Examiner disagrees. Both Tubel and Salvo pertain to the monitor and control of downhole wells. Salvo extends this concept by permitting the remote control of such wells using the internet. One of ordinary skill in the art would recognize that telemetry systems occur in a multitude of configurations and that the transmission of data to a control center is not limited to one particular configuration, but may be adapted to any particular use. Where remote control is desired a dispersed network would be preferable because of the flexibility of locating the critical operator and control of such systems. It is well recognized that oil well are frequently located in far corners of the world. The claims as presented are not limited to production oilfields

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or injection wells. The only mention is within the preamble which is given very little patentable weight. Regarding the use of a server for communication, as stated in the discussion of Tubel, a server is interpreted as any computer who serves to relay data between two separate computer systems. Tubel uses a satellite for communicating between the oil wells and a land based monitoring system. Thus, a server is inherent in the satellite communication system.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert K. Wong whose telephone number is 703-305-8884. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Albert K. Wong
June 1, 2004